

REMARKS

The Official Action mailed July 7, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to November 7, 2003. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on January 28, 2002, and July 16, 2002. A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 1-27 were pending in the present application prior to the above amendment. Claims 4, 6-12, 16, 18, 20-25 and 27 have been amended to better recite the features of the present invention and to correct minor typographical and grammatical errors. New claims 28-33 have been added to recite additional protection to which the Applicants are entitled. Claims 1-6 and 13-19 have been withdrawn from consideration. Accordingly, claims 7-12 and 20-33 are currently elected, of which claims 7, 20 and 27 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 3 of the Official Action rejects claims 7-12 and 20-26 under 35 U.S.C. § 112, second paragraph, asserting that the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. With respect to claims 7-11 and 20-24, the Applicants have amended the claims to recite "a first intense light" and "a second intense light." With respect to claims 8 and 21, the Applicants have amended the claims to recite "a substrate on which the first semiconductor film is formed, from below said substrate or from above and below said substrate." With respect to claims 11 and 24, the Applicants have amended the claims to recite "wherein an atmosphere within a process chamber when irradiating the first and second intense lights is selected from nitrogen gas and an inert gas." The

Applicants respectfully submit that claims 7-12 and 20-26 are definite as amended. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

Paragraph 4 of the Official Action rejects claim 27 as anticipated by U.S. Patent No. 5,529,937 to Zhang. The Applicants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Zhang does not teach all the elements of the independent claims, either explicitly or inherently. The Applicants have amended claim 27 to recite irradiating a crystallized semiconductor film with laser light to increase a crystallinity of the crystallized semiconductor film, and irradiating intense light directly to the crystallized semiconductor film after the irradiation of the laser light. Zhang appears to disclose irradiating a laser light, forming a silicon oxide film 106, and then irradiating visible light. However, Zhang does not teach irradiating intense light directly to the crystallized semiconductor film after the irradiation of the laser light. In other words, Zhang appears to disclose an intermediate step between irradiating a laser light and irradiating a visible light. Zhang does not disclose removing the step of forming a silicon oxide film 106 so that irradiation of a crystallized semiconductor film occurs directly after irradiation of the laser light.

Since Zhang does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b) are in order and respectfully requested.

Paragraphs 5 and 6 of the Official Action reject claims 7-12 and 20-27 as obvious based on the combination of JP 11-074536 to Aya et al. and U.S. Patent No. 5,904,770 to Ohtani et al. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 7 and 20 have been amended to recite irradiating a second intense light directly to the third semiconductor film to form a fourth semiconductor film. As noted above, independent claim 27 has been amended to recite irradiating a crystallized semiconductor film with laser light to increase a crystallinity of the crystallized semiconductor film, and irradiating intense light directly to the crystallized semiconductor film after the irradiation of the

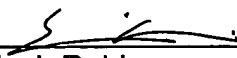
laser light. Aya and Ohtani do not teach or suggest at least the above-referenced features of the present invention. Aya and Ohtani appear to disclose irradiating a laser light, forming an insulating film 4 and then irradiating visible light. However, Aya and Ohtani do not teach or suggest either irradiating a second intense light directly to the third semiconductor film to form a fourth semiconductor film or irradiating intense light directly to the crystallized semiconductor film after the irradiation of the laser light. In other words, Aya and Ohtani appear to disclose an intermediate step between irradiating a laser light and irradiating a visible light. Aya and Ohtani do not teach or suggest removing the step of forming an insulating film 4 so that irradiation of laser light occurs directly after irradiation of visible light.

Since Aya and Ohtani do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claims 28-33 have been added to recite additional protection to which the Applicants are entitled. For at least the reasons stated above, the Applicants respectfully submit that new claims 28-33 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,


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